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| 09/603,204 | 06/26/2000 | Kyung-geun Lee | 1293.1126/MDS/JGM | 2962 |

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| EXAMINER | |
|---|---|
| PATEL, GAUTAM | |
| **ART UNIT** | **PAPER NUMBER** |
| 2655 | 23 |

DATE MAILED: 12/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



TS

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/603,204 | LEE ET AL. | |
| | Examiner | Art Unit | |
| | Gautam R. Patel | 2655 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *14 October 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *9,11-17,29-40 and 49-63* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9,11-17,29-40 and 49-63* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *22*.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

***Response to Amendment***

1. This is in response to amendment filed on 10-14-03 ( Paper # 21).

2. Claims 9, 11-17, 29-40 and 49-63 remain for examination.

Claim 9 is rejected under 35 U.S.C. § 102(b) as being anticipated by Imaino et al., US. patent 5,449,590 (hereafter Imaino).

As to claim 9, Imaino discloses the invention as claimed [see Figs. 1-29, especially figs. 7, 9-11] including detecting defocus, compensating recording signal and adjusting power level, comprising steps of:

detecting the defocus of the optical recording medium [col. 13, line 47 to col. 14, line 16] using a light beam having a wavelength of roughly 430 nm or less [blue laser] [col. 8, lines 26-38]; and

compensating a recording signal with respect to the detected defocus including adjusting a power level required for recording the recording signal [col. 10, lines 16-26 & col. 13, lines 9-27].

NOTE: Blue laser inherently has wavelength of roughly 430 nm or less.

***Claim Rejections - 35 U.S.C. § 103***

3. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the

examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Imaino et al., US. patent 5,449,590 (hereafter Imaino) and in view of Eastman et al., US. patent 5,446,716 (hereafter Kirino).

As to claim 9, Imaino discloses the invention as claimed [see Figs. 1-29, especially figs. 7, 9-11] including detecting defocus, compensating recording signal and adjusting power level, comprising steps of:

detecting the defocus of the optical recording medium [col. 13, line 47 to col. 14, line 16] using a light beam having a wavelength of roughly 430 nm or less [blue laser] [col. 8, lines 26-38]; and

compensating a recording signal with respect to the detected defocus including adjusting a power level required for recording the recording signal [col. 10, lines 16-26 & col. 13, lines 9-27].

Imaino discloses all of the above steps, including step of adjusting power [col. 10, lines 16-26]. One of ordinary skill in the art knows that even though reflectivity is function of focus and thus adjusting power based on reflectivity is actually adjusting power based on focus. Imaino does not specifically disclose this.

However Eastman clearly discloses:

adjusting a write power level [with the help of a write power detector] required for recording the record signal [col. 3, lines 8-29].

Both Imaino and Eastman are interested in adjusting the power level of laser with different kind of degradations such as reflectivity [Imaino] and defocus and tilt [Eastman]. One of ordinary skill in the art would have realized that reflectivity changes are one more type of degradation that causes the unwanted changes in the system performance and must be compensated, and also problems caused by the defocus needs be corrected for proper operation of the system. Therefore it would have been obvious to have used power control directly based on the defocus of the system as taught by Eastman in system of Imaino because it would have made system of Eastman

far more effective and robust in face of various multiple simultaneously occurring degradations [col. 3, lines 8-11].
NOTE: Blue laser inherently has wavelength of roughly 430 nm or less.

4. Claims 11-17, 29-40, 49-63 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Imaino as applied to claim 9 above and in view of Kirino et al., US. patent 5,848,045 (hereafter Kirino).

As to claim 11, Imaino discloses:

detecting the defocus of the optical recording medium [col. 13, lines 47-55];

compensating a write pulse with respect to the detected defocus using a predetermined scheme, wherein the write pulse comprises a predetermined recording pattern [col. 13, lines 9-27; col. 14, lines 3-37];

detecting the tilt of the recording medium of the optical recording medium [col. 13, line 47 to col. 14, line 2 and col. 14, line 47 to col. 15, line 29 and figs. 9-11];

Imaino discloses all of the above elements including detecting defocus and tilt of the recording medium and compensating a write pulse as shown above. Imaino does not specifically disclose well known details of write pulse adjustment and leading pulse last pulse [cooling pulse] etc. and compensating a write time of the write pulse with respect to the detected tilt. However Kirino clearly discloses:

compensating a write time of the write pulse with respect to the detected tilt so as to shift the recording pattern with respect to the detected tilt [col. 13, lines 39-64; col. 19, lines 13-40; col. 21, line 66 to col. 22, line 48 and fig. 10 and 15]. Both Imaino and Kirino are interested in recording and reading information to and from an optical disc in most efficient way and adjusting the laser beam power of the optical system with respect signal provided from focus error and tilt.

One of ordinary skill in the art at the time of invention would have realized that accurate tilt angle detection is necessary for high volume recording [especially with blue laser] and that an equalizer is necessary for high density recording and the tilt information is obtained from the most suitable tap coefficients for accurate tilt angle

detection. Therefore, it would have been obvious to have used a an equalizer and pulse compensating scheme, including adjusting first and last pulses in the system of Imaino as taught by Kirino because one would be motivated to detect tilt angle more accurately and distortion of the waveform of reading signal can be removed in a high density recording environment [col. 13, lines 50-64].
NOTE: Tilt inherently causes defocus, so when tilt is corrected, the defocus [that was caused by the tilt] also gets corrected by default.

5. As to claim 12, Imaino discloses:

the predetermined scheme comprises adjusting a power level with respect to the detected defocus [col. 10, lines 16-26 and col. 13, line 47 to col. 14, line 16].
NOTE: layer change also causes focus error signal FES and laser power gets adjusted accordingly to compensate for focus.

6. As to claim 13, Kirino discloses:

compensating the write pulse with respect to the detected tilt further comprises:

shifting the recording pattern with respect to the detected tilt by both an amount that the recording pattern was shifted due to the detected tilt, and in a direction opposite to the direction that the recording pattern was shifted due to the detected tilt; and

adjusting a power and the write time required for recording with respect to the detected tilt in order to compensate for a size of a recording mark corresponding to the recording signal [col. 13, lines 39-64 and col. 19, lines 13-47].

7. As to claim 14, Kirino discloses:

adjusting a write power to compensate a length of the recording mark; and

the adjusting the time comprises adjusting a write time to compensate a width of the recording mark [col. 13, lines 39-64 and col. 19, lines 13-47].

8. As to claim 15, Kirino discloses:

adjusting the recording mark width comprises adjusting an ending time of a first pulse and/or a starting time of a last pulse of the recording pattern [col. 13, lines 39-64 and col. 19, lines 13-47].

9. As to claim 16, Kirino discloses:

the adjusting the power comprises adjusting a write power to compensate a length of the recording mark, and

adjusting a write power of a multi-pulse chain of the recording pattern to adjust a width of the recording mark [col. 13, lines 39-64 and col. 19, lines 13-47].

10. As to claim 17, Imaino discloses:

detecting the tilt and the defocus of the optical recording medium [col. 13, lin 47 to col. 14, line 46]; and

adaptively compensating the recording pattern with respect to the detected tilt and/or defocus using a memory [fig. 10, unit 314 inherently has memory] [col. 13, line 47 to col. 14, line 46], wherein the memory stores data comprising:

a write power to compensate with respect to the detected defocus [col. 10, lines 16-26];

Imaino discloses all of the above elements including detecting defocus and tilt of the recording medium and compensating a write pulse as shown above. Imaino does not specifically disclose well known details of write pulse adjustment and leading pulse last pulse [cooling pulse] etc. and compensating a write time of the write pulse with respect to the detected tilt. However Kirino clearly discloses:

a power and a time required for recording to compensate for an amount of shift of the recording pattern, and

a power and time required for recording to compensate for a length and width of a recording mark with respect to the detected tilt and/or a length of the recording mark [col. 13, lines 39-64; col. 19, lines 13-40; col. 21, line 66 to col. 22, line 48 and fig. 10 and 15];

Both Imaino and Kirino are interested in recording and reading information to and from an optical disc in most efficient way and adjusting the laser beam power of the optical system with respect signal provided from focus error and tilt.

One of ordinary skill in the art at the time of invention would have realized that accurate tilt angle detection is necessary for high volume recording [especially with blue laser] and that an equalizer is necessary for high density recording and the tilt information is obtained from the most suitable tap coefficients for accurate tilt angle detection. Therefore, it would have been obvious to have used a an equalizer and pulse compensating scheme, including adjusting first and last pulses in the system of Imaino as taught by Kirino because one would be motivated to detect tilt angle more accurately and distortion of the waveform of reading signal can be removed in a high density recording environment [col. 13, lines 50-64].

11. As to claim 29 Imaino discloses

a tilt and/or defocus detector which detects the tilt and/or the defocus of the optical recording medium [col. 13, line 47 to col. 14, line 46]; and

the recording pulse comprises a predetermined recording pattern [col. 13, line 47 to col. 14, line 46];

a recording compensator [fig. 7, unit 212] which compensates a recording pulse with respect to the detected tilt and defocus [col. 13, line 9 to col. 14, line 46] using a predetermined scheme [col. 10, lines 16-26];

Imaino discloses all of the above elements including detecting defocus and tilt of the recording medium and compensating a write pulse as shown above. Imaino does not specifically disclose well known details of write pulse adjustment and leading pulse last pulse [cooling pulse] etc. and adjusting the write time to compensate the width of the mark and adjusting the end of first pulse or start of last pulse. However Kirino clearly discloses:

a scheme to adjust a length and a width of a recording mark according to the detected tilt and/or defocus [col. 13 lines 39-64 and col. 19, lines 13-47].

Both Imaino and Kirino are interested in recording and reading information to and from an optical disc in most efficient way and adjusting the laser beam power of the optical system with respect signal provided from focus error and tilt.

One of ordinary skill in the art at the time of invention would have realized that accurate tilt angle detection is necessary for high volume recording [especially with blue laser] and that an equalizer is necessary for high density recording and the adjustment of pulses length and width are part of adjustment scheme. Therefore, it would have been obvious to have used a an equalizer and pulse compensating scheme in the system of Imaino as taught by Kirino because one would be motivated to detect tilt angle more accurately and distortion of the waveform of reading signal can be removed in a high density recording environment [col. 13, lines 50-64].

12. As to claim 30, Imaino discloses:

according to the predetermined scheme, said recording compensator adjusts a power level required for recording the recording pulse with respect to the detected defocus [col. 10, lines 16-26 and col. 13, line 47 to col. 14, line 16].
NOTE: layer change also causes focus error signal FES and laser power gets adjusted accordingly to compensate for focus.

13. As to claim 31, Imaino discloses:

according to the predetermined scheme, said recording compensator adjusts a power and a time required [when power is adjusted, time inherently gets adjusted because time adjustment changes the power] for recording the recording pulse with respect to the detected tilt [col. 10, lines 16-26 and col. 13, line 47 to col. 14, line 16].
NOTE: layer change also causes focus error signal FES and laser power gets adjusted accordingly to compensate for focus

14. As to claim 32, Kirino discloses:

said recording compensator adjusts a write power with respect to the detected defocus, and generates the recording pulse earlier to compensate for an amount of shift

with respect to the detected tilt, and adjusts a power and/or a time of the shifted recording pulse to compensate the length and the width of the recording mark [col. 13 lines 39-64 and col. 19, lines 13-47].

15. As to claim 33, Kirino discloses:

said recording compensator adjusts the power required for recording to compensate the length of the recording mark, and adjusts the time required for recording in order to compensate the width of the recording mark [col. 13 lines 39-64 and col. 19, lines 13-47].

16. As to claim 34, Kirino discloses:

said recording compensator adjusts the power by adjusting a write power to compensate the length of the recording mark, and adjusts the time by adjusting an ending time of a first pulse and/or a starting time of a last pulse to compensate the width of the recording mark [col. 13 lines 39-64 and col. 19, lines 13-47].

17. As to claim 35, Kirino discloses:

said recording compensator both adjusts the power by adjusting a write power to compensate the length of the recording mark, and adjusts a power of a multi-pulse chain of recording pattern to compensate the width of the recording mark [col. 13 lines 39-64 and col. 19, lines 13-47].

18. As to claim 36, Imaino discloses:

a luminance source [fig. 7, unit 200] which provides the recording, wherein a wavelength of the luminance source is equal to or less than approximately 430 nm [col. 13, lines 9-27 and col. 10, lines 16-26].

NOTE: Blue laser inherently has wavelength of approximately 430 nm or less.

19. As to claims 37-38:

Regarding claims 37-38, combination of Imaino and Kirino does not specifically disclose that the numerical aperture is greater than or equal to 0.6 when substrate thickness is 0.3 mm or higher and numerical aperture is greater than or equal to 0.7 when substrate thickness is .3 mm or lower. Combination of Imaino and Kirino teaches that different wavelength would require different aperture of the lens and hence substrate thickness would also vary accordingly. The limitations in claims 37-38 do not define a patentable distinct invention over that in combination of Imaino and Kirino since both the invention as a whole and combination of Imaino and Kirino are directed to processing the defocus and tilt and adjusting the power accordingly. The degree in which the aperture is adjusted or substrate thickness is selected presents no new or unexpected results, so long as the compensation of the defocus and tilt in a successful way. Therefore, to have different thickness of the substrate which corresponds to different numerical aperture would have been routine experimentation and optimization in the absence of criticality.

20. As to claim 39, it is rejected for the same reasons set forth in the rejection of claim 17, supra.

21. As to claim 40, Kirino discloses:

a power and/or time and an amount of shift required for recording to compensate when defocus and tilt occur together; and

power and/or time and an amount of shift required for recording to compensate when defocus or tilt occurs [col. 13 lines 39-64 and col. 19, lines 13-47].

22. As to claim 49, it is rejected for the same reasons set forth in the rejection of claim 29, supra.

23. As to claim 50, Imaino discloses:

the predetermined scheme comprises adjusting a power level required for recording the recording signal [col. 10, lines 16-26].

24. As to claims 51-53 they are claims corresponding to claims 11-13 respectively and they are therefore rejected for the same reasons set forth in the rejection of claims 11-13 respectively, supra.

25. As to claims 54-56 they are claims corresponding to claims 14-16 respectively and they are therefore rejected for the same reasons set forth in the rejection of claims 14-16 respectively, supra.

26. As to claim 57, it is rejected for the same reasons set forth in the rejection of claim 29, supra.

27. As to claim 58, Imaino discloses:

the detected defocus and detected tilt are detected using a light beam [fig. 7, unit 200] having a wavelength of roughly 430 nm or less [col. 13, lines 9-27 and col. 10, lines 16-26].

NOTE: Blue laser inherently has wavelength of approximately 430 nm or less.

28. As to claim 59, it is rejected for the same reasons set forth in the rejection of claim 58, supra.

29. As to claim 60, Kirino discloses:

predetermined scheme comprises adjusting a write time required for recording the recording signal [col. 13 lines 39-64 and col. 19, lines 13-47].

30. As to claim 61, it is rejected for the same reasons set forth in the rejection of claim 36, supra.

31. As to claim 62, Kirino discloses:

the compensating the write pulse with respect to detected tilt comprises adjusting a power and/or a write time required for recording the write pulse col. 13 lines 39-64 and col. 19, lines 13-47].

32. As to claim 63, it is rejected for the same reasons set forth in the rejection of claim 58, supra.

33. Applicant's arguments with respect to claim 9 have been considered but are moot in view of the new grounds of rejection.

34. Applicant's arguments filed on 10-14-03 ( Paper # 21) with respect claims 11-17, 29-40 and 49-63 have been fully considered but they are not deemed to be persuasive for the following reasons.

35. In the REMARKS, the Applicant argues as follows:

A) That: "Contrary to Imaino, independent claims 11 and 51, teach compensating a write pulse with respect to the detected defocus using a predetermined scheme [page 14, para. 2; REMARKS].

The Applicants are correct that **Imaino** does not discloses all these aspect. However 103 rejection was given not 102. Imaino does clearly discloses compensating a write pulse with respect to detected defocus using predetermined scheme [scheme to adjust defocus]. **Imaino** does not disclose write pulse compensating which **Kirino** discloses.

B) That: "Kirino fails to teach or suggest, "compensating a write pulse with respect to the detected defocus using a predetermined scheme,"" [page 14, para. 3; REMARKS].

Again Kirino was NOT used alone for this limitation. Combination of Imaino **and** Kirino was used. Thus **Kirino** does clearly discloses compensating a write pulse with respect to detected tilt. It should be pointed out that tilt inherently causes defocus, so when tilt is corrected, the defocus [that was caused by the tilt] also gets corrected by default.

C) That: "Contrary to Imaino, independent claim 17 recites a method for compensating input data for a tilt and/**or** a defocus comprising amongst other steps "adaptively compensating the recording pattern with respect to the detected tilt and/**or** defocus using a memory ... and a power and time required for recording to compensate for length and a width of a recording mark with respect to the detected tilt and/**or** length of the recording mark."" [page 15, para. 2; REMARKS].

FIRST: Again BOTH Imaino and Kirino were used for the rejection. And clearly combination does indeed disclose all of the above points.

SECOND: Kirino discloses tilt scheme [col. 13, lines 39-64] and also recording mark length adjustment scheme [see fig. 10].

D) That: "Similarly, independent claim 39 recites .... Kirino also fails to teach or suggest these features recited in independent claim 17 and 39." [page 15, para. 3 to page 16. Para. 1; REMARKS].

Please see arguments in paragraph 35, section A), B) and C) above.

E) That: "Although, Imaino discloses a compensator 212, such compensator is an "aberration compensator," used to obtain a good spot focus ...and not a "recording compensator which compensates a recording pulse with respect to the detected tilt and defocus using a predetermined scheme to adjust a length and width of a recording mark according to the detected tilt and/or defocus."" [page 17, para. 2, REMARKS].

FIRST: Applicants admit that Imaino clearly discloses a recording compensator which is used for focusing or adjusting defocus. The Applicants disputes that this compensator is used for defocus and tilt.

SECOND: It is well known that aberration is direct function or result of tilt and/or defocus, so correcting aberration inherently corrects tilt and/or focus, which ever is causing it. Also, as it was pointed out before that Imaino discloses circuit for BOTH the focus error and tilt error [see fig. 9, output signals FES and TES]. Since BOTH these signals are fed into the controller 314 [fig. 1], and output control signal is going to compensator, inherently this signal is function of TES and FES. It would be useless to compensate for only one error [FES] not the other [TES]. It defeats the purpose of generating second signal. Therefore by definition, compensator is using both signals.

F) That: "Independent claim 49 recites, amongst other processes, "adaptively compensating a length and a width of a recording signal with respect to the detected defocus and tilt using a predetermined scheme stored in memory.

The office action alleges that Imaino [original emphasis] teaches **a scheme to adjust a length and a width of a recording mark according to the detected tilt and/or defocus** [emphasis added], citing column 13, lines 39-64 and column 19, lines 13-47.

However, at column 13, Imaino [original emphasis] simply discloses an optical head and medium, and .... Accordingly, Imaino" fails to teach or fairly suggest the features cited in independent claim ..." [page 17, para. 6 to page 18, para. 2, REMARKS].

FIRST: Claim 49 was not directly rejected. So it is assumed that the Applicants are referring to rejection of claim 29 which has same limitations as claim 49.

SECOND: Careful examination of the limitation "**a scheme to adjust** ..." [as high lighted above] shows that on page 7 of last action, **Kirino** was used for this limitation NOT **Imaino** as argued by the Applicants. Therefore **Imaino** [and lines pointed in **Imaino**] obviously does not read on the claim.

THIRD: If that limitation is read in light of the fact the **Kirino** was used for that limitation in claim 29 [and therefore claim 49] all the lines and passages become very clear and ALL the limitation become obvious and properly addressed. The lines that the Applicants are referring to in argument above, belongs to **Imaino**, while line quoted by the Examiner [in the rejection of the claim] reefers to **Kirino,** which of course reads on the limitation.

G) That: "The Office Action recites that claim 57 stands rejected for the sane reasons set forth in the rejection of claim 29. However, in the rejection claim 29, the Office Action makes no reference to "compensating a write pulse with respect to the detected defocus using a predetermined scheme" or "compensating the write pulse with respect to the detected tilt so as to adjust a length and a width of recording mark in accordance with the detected tilt." [page 18, para. 7; REMARKS].

FIRST: Again careful examination of rejection of claim 29 shows that limitation of compensating a write pulse" [recording pulse] is covered in lines 6-7 of rejection of claim 29 on page 7. Yes the wordings are slightly different such as writing verses recording, but they both are used alternately in this art to describe the same thing.

SECOND: As to limitation of adjusting the a length and a width, again **Kirino** was used for this and it clearly indicated on lines 15-16 of claim rejection 29 on page 7.

36. Applicant's amendment necessitated the new grounds of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact information***

37. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is (703) 308-7940. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To can be reached on (703) 305-4827.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-4700 or the group Customer Service section whose telephone number is (703) 306-0377.

Gautam R. Patel
Patent Examiner
Group Art Unit 2655

December 8, 2003